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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/662,487	09/15/2003	Kyle Broussard	20030829	9214
31346	7590	07/28/2004	EXAMINER	
ROBERT N. MONTGOMERY 109 BROWNLEE AVE. BROUSSARD, LA 70518-3021			WRIGHT, ANDREW D	
			ART UNIT	PAPER NUMBER
			3617	

DATE MAILED: 07/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/662,487	BROUSSARD, KYLE	
	<b>Examiner</b>	<b>Art Unit</b>	
	Andrew Wright	3617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>9/15/03</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Claim Objections***

1. Claims 1, 5, 6, 11, and 13 are objected to because of the following informalities. Appropriate correction is required.
2. Claim 1 recites "a vertical drive housing" and subsequently recites "said drive housing" and "said vertical housing" and "said vertical drive housing". Consistent terminology should be used throughout out the claims.
3. Claim 1 recites "an air cooled engine" and subsequently recites "said engine" and "said air cooled engine". Consistent terminology should be used throughout out the claims.
4. Claim 5 recites "belt type pulleys". Use of the word "type" is unnecessary.
5. Claim 6 has inconsistent terms similar to claim 1 regarding recitations of "said belt drive housing" and "said air cooled motor".
6. Claim 11, the word "access" should be "excess".
7. Claim 13 has inconsistent terms similar to claims 1 and 6 regarding recitations of "said vertical housing" and "said vertical drive housing".

### ***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 1-3, 5-9, 12, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stojkov et al. (US 5,178,566) in view of Hasl et al. (US 6,468,120). Stojkov discloses a vertical drive housing (12). Housing (12) has upper and lower ends (figure 1B). Drive shaft (14) and universal joint (161) are a means for attaching engine (13) perpendicularly to the housing. Engine (13) has an output shaft (162) located within the housing. Propeller shaft (261) is attached to the lower end of the housing on an opposite side of the housing from the engine. Mounting structure (80) comprises bracket (81) which constitutes a pivotal transom mounting bracket located intermediate the housing (12) and the transom. The mounting structure allows for both tilt and steering pivotal movement of the housing (12). Belt (37) is within the housing (12) and connects the engine to the propeller shaft. Stojkov discloses a water cooled engine. Hasl discloses a marine propulsion unit with an inboard engine and an outdrive, similar to that of Stojkov. Hasl teaches that the engine can be cooled using an air cooling system, an open loop water cooling system, or a closed loop water cooling system. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Stojkov by replacing the water cooling system with an air cooling system. The motivation would be to reduce the size, weight, and complexity of the engine.
10. Claim 2, Stojkov shows a transmission (17) for reversing drive rotation.
11. Claim 3, Stojkov shows steering controls (22). Stojkov does not specifically show throttle controls. However, it is well known and common to provide throttle controls such that the operator can control the output of the engine and therefore the speed of

the boat. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify Stojkov by providing a throttle control. The motivation would be to allow the operator can control the output of the engine and therefore the speed of the boat.

12. Claim 5, Stojkov shows an upper pulley, a lower pulley, and a belt.

13. Stojkov in view of Hasl as described above with respect to claims 1-3 and 5 contains all of the limitations of claims 6-9 and 12.

14. Regarding claim 13, Stojkov in view of Hasl does not specifically disclose the recited method steps. The steps, however, are inherent in the making and use of the modified invention of Stojkov. Stojkov discloses that the outdrive can be tilted up to a position where it is not below the bottom of the boat. Stojkov also discloses that the outdrive can kick-up to such a position in response to striking an object in the water. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to devise the recited method steps. The motivation would be to make and use the modified invention of Stojkov.

15. Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stojkov in view of Hasl as applied to claims 1 and 6 above, and further in view of Foreman (US 6,302,750). Stojkov shows a propeller shaft housing (246, 247). Stojkov shows a propeller shaft (261) that is supported at the ends of the housing and extends outward of either end of the housing. Stojkov shows thrust bearings (244, 245) that support the shaft (see figure 13). Stojkov shows a skeg (280). Stojkov does not show that the skeg is triangular. Stojkov does not disclose seals. Skegs come in various

Art Unit: 3617

shapes and sizes. Foreman shows a triangular skeg. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Stojkov by using a triangular skeg instead. The motivation would be to reduce the weight of the outdrive by using less material in the skeg (280) by removing the portion behind the angled portion (figure 1B). Furthermore it is well known and common to use seals in a propeller shaft housing to prevent water from harming the bearings. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Stojkov by using seals around the bearings (244, 245). The motivation would be to prevent water from harming the bearings.

16. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stojkov in view of Hasl as applied to claim 6 above, and further in view of Meisenburg et al (US 5,415,576). Stojkov does not disclose the length of the propeller shaft assembly. Meisenburg shows an outdrive similar to that of Stojkov. Meisenburg discloses that the distance from the propeller shaft (156) to the input shaft (28) is about 8 to 15 inches. It can be seen from figure 2 of Meisenburg that the length of the propeller shaft assembly, from the front edge of the housing (198) to the back end at nut (180) is substantially longer than the distance between shaft (156) and shaft (28). Using figure 2 of Meisenburg as a starting point, it would be within the range of routine experimentation to make a propeller shaft assembly that is at least 18 inches long. Therefore it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Stojkov by making the propeller shaft assembly at least 18 inches long.



The motivation would be to optimize design parameters such as size and weight by starting with a known size suggested by Meisenburg.

**Conclusion**

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Pignata ('763, provided by applicant) and Brandt ('866) both show the equivalence of an outboard motor and an inboard-outdrive assembly for a belt driven propulsion unit.

18. Any inquiry concerning this communication should be directed to examiner Andrew D. Wright at telephone number (703) 308-6841. The examiner can normally be reached Monday-Friday from 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, S. Joe Morano, can be reached at (703) 308-0230. The fax number for official communications is 703-872-9306. The fax number directly to the examiner for unofficial communications is 703-746-3548.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Andrew D. Wright

ANDREW D. WRIGHT  
PRIMARY EXAMINER

*Ar* 7/25/04

Application/Control Number: 10/662,487

Page 7

Art Unit: 3617

Patent Examiner

Art Unit 3617